CLAIMS

What is claimed is:

1. A method for estimating signal-to-noise ratio of a forward traffic channel in a wireless communication system that utilizes a pilot channel, said method comprising:

estimating a signal-to-noise ratio for the pilot channel;

estimating an adjustment to convert the signal-to-noise ratio for the pilot channel to a signal-to-noise ratio for the forward traffic channel; and

applying the adjustment to the signal-to-noise ratio for the pilot channel to obtain an estimate for the signal-to-noise ratio for the forward traffic channel.

2. A method according to claim 1, wherein the signal-to-noise ratio for the pilot channel is multiplied by the adjustment to obtain the signal-to-noise ratio for the forward traffic channel.

3. A method according to claim 1, wherein the adjustment is comprised of a fast correction component and a slow correction component, and wherein the fast correction component is updated more frequently than the slow correction component.

4. A method according to claim 3, wherein the slow correction component is updated at intervals of at least one frame.

5. A method according to claim 3, wherein the fast correction component is updated at an interval of not more than four power control groups.

6. A method according to claim 3, wherein the fast correction component is based on a power control signal sent to a base station in the wireless communication system.

7. A method according to claim 3, wherein the slow correction component is based on an estimation of a ratio of traffic channel power to a second estimation of traffic channel power that is based on pilot channel power.

8. A method according to claim 3, wherein the slow correction component is applied only if an estimate for the slow correction component has a magnitude that exceeds a set threshold.

9. A method according to claim 3, further comprising a step of estimating a power control step size for a base station in the communication system using a result from an estimation of the slow correction component.

10. A method according to claim 1, wherein the signal-to-noise ratio for the pilot channel is estimated by summing signal-to-noise ratios for each finger in a Rake receiver.

11. A method according to claim 1, further comprising a step of utilizing the estimate for the signal-to-noise ratio for the forward traffic channel to perform forward channel power control.

12. An apparatus for estimating signal-to-noise ratio of a forward traffic channel in a wireless communication system that utilizes a pilot channel, said apparatus comprising:

means for estimating a signal-to-noise ratio for the pilot channel;

means for estimating an adjustment to convert the signal-to-noise ratio for the pilot channel to a signal-to-noise ratio for the forward traffic channel; and

means for applying the adjustment to the signal-to-noise ratio for the pilot channel to obtain an estimate for the signal-to-noise ratio for the forward traffic channel.

13. An apparatus according to claim 12, wherein the signal-to-noise ratio for the pilot channel is multiplied by the adjustment to obtain the signal-to-noise ratio for the forward traffic channel.

14. An apparatus according to claim 12, wherein the adjustment is comprised of a fast correction component and a slow correction component, and wherein the fast correction component is updated more frequently than the slow correction component.

15. An apparatus according to claim 14, wherein the slow correction component is updated at intervals of at least one frame.

16. An apparatus according to claim 14, wherein the fast correction component is updated at an interval of not more than four power control groups.

17. An apparatus according to claim 14, wherein the fast correction component is based on a power control signal sent to a base station in the wireless communication system.

18. An apparatus according to claim 14, wherein the slow correction component is based on an estimation of a ratio of traffic channel power to a second estimation of traffic channel power that is based on pilot channel power.

19. An apparatus according to claim 14, wherein the slow correction component is applied only if an estimate for the slow correction component has a magnitude that exceeds a set threshold.

20. An apparatus according to claim 14, further comprising a step of estimating a power control step size for a base station in the communication system using a result from an estimation of the slow correction component.

21. An apparatus according to claim 12, wherein the signal-to-noise ratio for the pilot channel is estimated by summing signal-to-noise ratios for each finger in a Rake receiver.

22. An apparatus according to claim 12, further comprising means for utilizing the estimate for the signal-to-noise ratio for the forward traffic channel to perform forward channel power control.